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WELTORGANISATION FÜR GEISTIGES EIGENTUM

Internationales Büro

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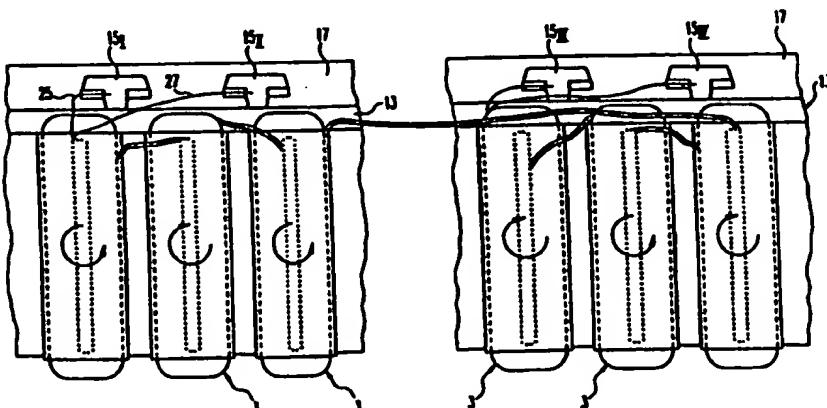
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(54) Title: **STATOR AND STATOR WINDING METHOD FOR A BRUSHLESS DIRECT-CURRENT MOTOR**

(54) Bezeichnung: **STATOR UND VERFAHREN ZUM BEWICKELN EINES STATORS FÜR EINEN BÜRSTENLOSEN GLEICHSTROMMOTOR**

(57) Abstract

Disclosed is a stator winding method for a brushless direct-current motor including a stator body (9) with a number of stator teeth (3), each of which is wound with two magnetic-coupling coils (W1, W3; W2, W4) enabling contrary magnetic fields to be created due to the fact that the current in said coils flow in two opposite directions and that each of the two coils (W1, W3; W2, W4) is comprised of a number of conductors connected in parallel. According to the invention, the stator teeth (3) are wound in various partial-winding operations with two conductors (25, 27) or an even number of 2n conductors, of which one (25, 27) or n conductor from the 2n conductors is assigned to one coil, while the other of the two conductors (25, 27) or the other n conductors of the 2n conductors is assigned to the other coil. A number of partial-winding operations are performed until the set number of conductor per coil (W1, W3; W2, W4) has been reached. The invention also relates to an appropriate stator.



ABSTRACT

11/11/02 A
The invention relates to a method for winding a stator for a brushless direct current motor, which has a stator body (9) with a predetermined number of to be wound stator teeth (3) with the stator teeth (3) respectively being wound with two coils (W1, W3; W2, W4) which are magnetically coupled and which facilitate by supply of current with variable directional orientation the generation of opposite magnetic fields, whereby each of the two coils (W1, W3; W2, W4) comprises a predetermined number of in parallel arranged conductors. According to the invention, the stator teeth (3) are respectively wound simultaneously in several partial winding steps, with two conductors (25, 27) or with an even number of $2n$ conductors, whereby one of the two conductors (25, 27) or n conductor of the $2n$ conductors is allocated to the one coil and the other of the two conductors (25, 27) or the other n conductor of the $2n$ conductors are allocated to the other coil and whereby a pre-determined number of partial winding steps is performed until the pre-determined number of conductors per coil (W1, W3; W2, W4) has been reached. In addition, the invention relates to an appropriate stator.

The principal drawing is Fig. 3.